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10/826,412

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P57052

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EXAMINER

LAI, DANIEL

ART UNIT

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2617

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/826,412

Applicant(s)

KIM ET AL.

Examiner

Daniel Lai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-14 is/are allowed.
- 6) ☒ Claim(s) 1-11 and 23-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 June 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Response to Amendment

Applicant's arguments filed June 19th, 2007 have been fully considered but they are not persuasive.

The argued features, i.e., an apparatus for processing a data call in a private evolution data only wireless network system, comprising: relay unit relaying a unicast access terminal identifier request message when the unicast access terminal identifier request message is received from a terminal entering a private evolution data only wireless network, the unicast access terminal identifier request message including a public network unicast access terminal identifier allocated in a public evolution data only wireless network; call processing unit generating a new private evolution data only wireless network unicast access terminal identifier request signal in response to the unicast access terminal identifier request message relayed by the relay unit, and, when a unicast access terminal identifier response message, Unknown unicast access terminal identifier, corresponding to the unicast access terminal identifier request signal is received, closing a session created at the terminal and the public network according to the received message, and said call processing unit relaying a new unicast access terminal identifier request message provided from the terminal through the relay unit, the new unicast access terminal identifier request message including random unicast access terminal identifier information, and sending an authentication request signal to the connection terminal through the relay unit when a private network session is established with the terminal according to a newly allocated unicast access terminal identifier; and session information processing unit for providing

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a unicast access terminal identifier response message to the call processing unit in response to the private evolution data only wireless network unicast access terminal identifier request signal generated from the call processing unit, allocating the new unicast access terminal identifier to the connection terminal according to the relayed new unicast access terminal identifier request message from the call processing unit to establish the private evolution data only wireless network session with the terminal, and then storing the established session information in a database of the session information processing unit read upon the cited references.

Morales discloses a wireless communication network for handoff in an EV-DO network (Abstract). Therefore, Morales discloses the limitation “an apparatus for processing a data call in a private evolution data only (EVDO) wireless network system”. Morales discloses PCF relay packets (paragraph 22; paragraph 56). Therefore, Morales discloses the limitation “a relay unit relaying a unicast access terminal identifier (UATI) request message when the UATI request message is received from a terminal entering a private EVDO wireless network”. Morales discloses mobile station send a UATI request message and the access network responds with a UATI-Assignment message in response (paragraph 56, where Morales discusses response signal by the access network). Therefore, Morales discloses the limitation “a call processing unit generating a new private EVDO wireless network UATI request signal in response to the UATI request message relayed by the relay unit”. The access network inherently able to close a session created at the terminal and the public network according to the received message when an UATI response message, unknown UATI corresponding to the UATI request signal is received, closing a session created at the terminal and the public network according to the received message, and said call processing unit relaying a new UATI request message provided from the terminal

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through the relay unit, the new UATI request message including random UATI information, and sending an authentication request signal to the connection terminal through the relay unit when a private network session is established with the terminal according to a newly allocated UATI because the call processing unit is capable to generating a new EVDO UATI request signal.

Morales discloses means for providing UATI response message in response to a UATI request (paragraph 24, where Morales discusses PDSN; paragraph 56). Therefore, Morales discloses the limitation "a session information processing unit for providing a UATI response message to the call processing unit in response to the private EVDO wireless network UATI request signal generated from the call processing unit". The session information processing unit is inherently able to allocate the new UATI to the connection terminal according to the relayed new UATI request message from the call processing unit to establish the EVDO wireless network session with the terminal, and then storing the established session information in a database of the session information in a database of the session information processing unit because the session information processing unit is able to allocate the new UATI to the connection terminal.

In response to Applicant's argument that Examiner clearly misunderstood claims 23 and 24 regarding the computer readable medium as a carrier wave or an RF signal, Examiner respectfully disagrees because the claim is claiming a computer-readable medium, which according to the specification (p. 28, lines 9-15) can be carrier waves.

In response to Applicant's argument that Examiner makes unsupported inherency allegations, Examiner respectfully disagrees. Applicant has narrative language in an apparatus claim. The prior art Morales discloses the structural limitations and therefore inherently discloses

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the narrative language. In the case that Applicants want to claim the narrative language,

Applicant should claim the narrative language as apparatus.

As a result, the argued features are written such that they read upon the cited references.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 23 and 24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The “computer readable medium,” in accordance with Applicant’s specification, may be carrier wave or a RF signal. This subject matter is not limited to that which falls within a statutory category of invention because it is not limited to a process, machine, manufacture, or a composition of matter. Instead, it includes a form of energy. Energy does not fall within a statutory category since it is clearly not a series of steps or acts to constitute a process, not a mechanical device or combination of mechanical devices to constitute a machine, not a tangible physical article or object which is some form of matter to be a product and constitute a manufacture, and not a composition of two or more substances to constitute a composition of matter. Note that amending claims 23-24 to exclude computer readable medium from carrier wave or RF signal or the like would overcome this rejection in a manner consistent with Applicant’s specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-11 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morales et al. (US 2002/0067707, hereinafter Morales) in view of Larson (US 6,704,569).

Regarding claims 1 and 25, Morales discloses an apparatus for processing a data call in a private evolution data only (EVDO) wireless network system (abstract). Morales discloses a relay unit relaying a unicast access terminal identifier (UATI) request message when the UATI request message is received from a terminal entering a private EVDO wireless network (paragraph 22, where Morales discuss PCF relay packets; paragraph 56). The PCF is inherently able to have the UATI request message including a public network UATI allocated in a public evolution data only wireless network because the PCF has the capabilities to relay the UATI

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request message. Morales disclose a call processing unit generating a new private EVDO wireless network UATI request signal in response to the UATI request message relayed by the relay unit (paragraph 56, where Morales discusses response signal by the access network). The access network inherently able to close a session created at the terminal and the public network according to the received message when an UATI response message, unknown UATI corresponding to the UATI request signal is received, closing a session created at the terminal and the public network according to the received message, and said call processing unit relaying a new UATI request message provided from the terminal through the relay unit, the new UATI request message including random UATI information, and sending an authentication request signal to the connection terminal through the relay unit when a private network session is established with the terminal according to a newly allocated UATI because the call processing unit is capable to generating a new EVDO UATI request signal. Morales discloses a session information processing unit for providing a UATI response message to the call processing unit in response to the private EVDO wireless network UATI request signal generated from the call processing unit. The session information processing unit is inherently able to allocate the new UATI to the connection terminal according to the relayed new UATI request message from the call processing unit to establish the EVDO wireless network session with the terminal, and then storing the established session information in a database of the session information in a database of the session information processing unit because the session information processing unit is able to allocate the new UATI to the connection terminal (paragraph 24, where Morales discusses PDSN; paragraph 56).

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Morales lacks the networks are public and private. Larson discloses interconnection between public and private network (col. 2, line 33-67). Larson discloses private wireless communications provides wireless communications services to employees, contractors, and other specified individual who is registered with the private wireless communication system to increase the efficiency of communications (col. 1, line 20-31). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the communication system disclosed by Morales with the private network disclosed by Larson such that companies can provide an efficient wireless network to employees within it's own network.

Regarding claim 2, Morales discloses the limitations of claim 1 as applied above. Morales further discloses a Handoff Request Acknowledge message to allow the mobile station to be instructed to tune to the new RF channel (paragraph 45). Morales fails to specifically disclose an authentication unit authenticating user based on identifier information. Larson discloses roaming between private and public network (abstract). Larson discloses an authentication unit (col. 5, line 1-24, where Larson discusses the administrative node comprises of a data base containing user identity information). Larson further discloses from a previous discussion that the user information is used for authorization purposes (col. 4, line 2-5). It would have been obvious to one having ordinary skill in the art at the time of the invention to combine the invention of Morales and have an authentication unit as taught by Larson thus only authorized users can access to the private network and hence security is provided for the network.

Regarding claims 3 and 7, Morales discloses session information is provided to the call processing unit when the call session has been established (paragraph 50).

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Regarding claims 4 and 8, Morales discloses a traffic channel is established upon a network session with the terminal is established (paragraph 56).

Regarding claims 5 and 9, Morales discloses a router that routes call based on source and destination address (paragraph 40).

Regarding claim 6, Morales discloses the PDSN provide packet data over Intranetwork layer (paragraph 23 and 24, where Morales discloses PDSN routes packet data).

Regarding claim 10 and 11, Morales discloses the PDSN provide packet data over Intranetwork layer (paragraph 23 and 24, where Morales discloses PDSN routes packet data).

Allowable Subject Matter

Claims 23 and 24 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 101, set forth in this Office action.

Claims 12-22 are allowed.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Peng et al. (US 2003/0145091) and Ray et al. (US 2003/0135626) disclose roaming between EVDO networks.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Lai whose telephone number is (571) 270-1208. The examiner can normally be reached on Monday – Thursday, 9:00 a.m. – 4:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DL

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